



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,408	02/10/2000	Frederic Serre	A32979-070337.0181	3806

21839 7590 07/02/2007  
BUCHANAN, INGERSOLL & ROONEY PC  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
----------

RONESI, VICKEY M

ART UNIT	PAPER NUMBER
----------	--------------

1714

MAIL DATE	DELIVERY MODE
-----------	---------------

07/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/501,408

Applicant(s)

SERRE, FREDERIC

Examiner

Vickey Ronesi

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 23-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Please note that the examiner of record has been changed. The new examiner is Vickey Ronesi.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/18/2007 has been entered.
3. The outstanding 35 USC 112, 1<sup>st</sup> paragraph rejections are withdrawn in light of applicant's amendment filed on 4/18/2007.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

#### ***Claim Objections***

5. Claims 25, 31, and 39 are objected to because of the following reasons:

With respect to claims 25 and 31, the phrase "the natural rubber or synthetic polyisoprene comprises the majority of elastomer in the composition" is incorrect and should read as "the majority of elastomer in the composition is the natural rubber or synthetic polyisoprene" because the natural rubber or synthetic polyisoprene does not comprises a majority of anything.

Art Unit: 1714

With respect to claim 39, line 2, the term “agent” should be inserted after the term “coupling” so that it has full antecedent basis as recited in claim 37.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claims 23-28 and 35-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 23, it recites that the amount of silica is from 25-40 phr but also recites that the blend of carbon black and silica is in an amount between 15-50 phr and that the amount of silica is greater than or equal to the amount of carbon black in phr minus 5, the scope of the claim is confusing given that it is not clear how the composition can both comprise blend of carbon black and silica in amount between 15-50 phr and have amount of silica from 25-40 phr. That is, for instance, given that the minimum amount of silica is 25 phr, it is not clear how the lower limit of the amount of the blend of carbon black and silica is 15 phr. It would appear that the lower limit of the blend amount of carbon black and silica would necessarily have to be greater than the amount of silica alone.

With respect to claims 24-28 and 35-41, they are rejected for being dependent on a rejected claim.

***Claim Rejections - 35 USC § 103***

7. Claims 23-26, 29-32, 35, 36, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al (US 5,394,919) in view of JP '146 (JP 09-302146).

Sandstrom et al discloses a tire component that is a laminate of rubber composition and wire (i.e., bead) for a pneumatic tire that is in the form of a belt positioned circumferentially around the tire in the crown portion thereof between the tire tread and the tire carcass plies (col. 2, lines 51-68), wherein the rubber composition comprises 100 parts rubber such as cis-1,4-polyisoprene and cis-1,4-polyisoprene natural rubber and mixtures thereof with other diene rubber (col. 4, lines 1-37); 0-40 phr (col. 2, line 25) precipitated silica having a BET surface area of preferably 50-300 m<sup>2</sup>/g (col. 4, lines 46-61); and reinforcing carbon black, wherein the combined amount of silica and carbon black is at least about 35 phr (col. 4, lines 43).

Sandstrom et al fails to disclose the surface area of the reinforcing carbon black.

JP '146, which is drawn to tire, disclose the use of composition for bead filler (a reinforcing layer found axially outside the turn-up portion of the carcass and extending radially from the bead core) comprising carbon black possessing surface area of 50-150 m<sup>2</sup>/g. It is disclosed that if the surface area of the carbon black is less than 50 m<sup>2</sup>/g, there is poor hardness while if the surface area is greater the 150 m<sup>2</sup>/g, there is an increase in loss tangent.

Given that Sandstrom et al discloses the use of a reinforcing carbon black and further given that carbon black specific surface area disclosed by JP '146 as described above, it therefore would have been obvious to one of ordinary skill in the art to use such carbon black in the apex of the tire of Sandstrom et al. in order to produce tire with good hardness and low loss tangent that is easy to manufacture.

Art Unit: 1714

8. Claims 27 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al (US 5,394,919) in view of JP '146 (JP 09-302146) and further in view of Takeichi et al. (U.S. 6,008,295).

The discussion with respect to Sandstrom et al and JP '146 in paragraph 7 above is incorporated here by reference.

The difference between Sandstrom et al in view of JP '146 and the present claimed invention is the requirement in the claims of active groups on the additional diene elastomer.

Takeichi et al., which is drawn to rubber compositions for tires, discloses the use of silicon or tin halide modified diene elastomer in order to produce a composition with superior fracture properties and low hysteresis loss (col. 1, lines 19-22, col. 2, lines 34-55, and col. 6, lines 45-55).

In light of the motivation for using additional diene elastomer disclosed by Takeichi et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such diene elastomer in the tire of Sandstrom et al in order to produce tire with superior fracture properties and low hysteresis loss.

9. Claims 28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al (US 5,394,919) in view of JP '146 (JP 09-302146) and further in view of Fukahori et al. (U.S. 5,844,050).

The discussion with respect to Sandstrom et al and JP '146 in paragraph 7 above is incorporated here by reference.

Art Unit: 1714

The difference between Sandstrom et al in view of JP '146 and the present claimed invention is the requirement in the claims of additional diene elastomer that has been modified by branching agent such as divinylbenzene.

Fukahori et al, which is drawn to rubber composition, disclose a diene elastomer comprising a majority of cis-1,4-bonds, which is branched using divinylbenzene (col.9, lines 4-14, 32 and 46-50) in order to produce a composition with good abrasion resistance, fatigue resistance, and tensile properties (col.25, lines 26-36).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such diene elastomer in the tire of Sandstrom et al in order to produce tire with good abrasion resistance, fatigue resistance, and tensile properties.

10. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al (US 5,394,919) in view of JP '146 (JP 09-302146) and further in view of Vanel (U.S. 6,211,278).

The discussion with respect to Sandstrom et al and JP '146 in paragraph 7 above is incorporated here by reference.

The difference between Sandstrom et al in view of JP '146 and the present claimed invention is the requirement in the claims of covering agent.

Vanel, which is drawn to tire composition, disclose the use of covering agent that is alkoxyalkyl silane wherein the ratio of the amount of covering agent to the amount of silica is 0.01-0.2 (col.6, lines 55-66).

Art Unit: 1714

In light of the motivation for using covering agent in specific amount disclosed by Vanel as described above, it therefore would have been obvious to one of ordinary skill in the art to use such covering agent in Sandstrom et al in order to produce tire wherein the silica are effectively dispersed.

11. Claims 23-25, 29-31, 35, and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al (U.S. 6,776,206) in view of JP '146 (JP 09-302146).

The rejection is adequately set forth in paragraph 11 of the office action mailed 2/27/06 and is incorporated here by reference.

12. Claims 26-27 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al (U.S. 6,776,206) in view of JP '146 (JP 09-302146) and further in view of Takeichi et al. (U.S. 6,008,295).

The rejection is adequately set forth in paragraph 12 of the office action mailed 2/27/06 and is incorporated here by reference.

13. Claims 26, 28, 32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al (U.S. 6,776,206) in view of JP '146 (JP 09-302146) and further in view of Fukahori et al. (U.S. 5,844,050).

The rejection is adequately set forth in paragraph 13 of the office action mailed 2/27/06 and is incorporated here by reference.



Art Unit: 1714

14. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al (U.S. 6,776,206) in view of JP '146 (JP 09-302146) further in view of Vanel (U.S. 6,211,278).

The rejection is adequately set forth in paragraph 14 of the office action mailed 2/27/06 and is incorporated here by reference.

15. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segatta et al. (U.S. 6,776,206) in view of JP '146 (JP 09-302146).

The rejection is adequately set forth in paragraph 9 of the office action mailed 10/19/2006 and is incorporated here by reference.

### ***Response to Arguments***

16. Applicant's arguments filed on 4/18/2007 have been fully considered but they are not persuasive. Specifically, applicant argues that Segatta et al is not a relevant reference against the present claims given that there is no disclosure in Segatta et al. that the composition comprises more than 70 phr natural rubber or synthetic polyisoprene. Applicants note that the data in Tables I and II (examples) of Segatta et al. show that polybutadiene is used in very high amount compared to the amount of natural rubber.

It is agreed that there are no examples in Segatta et al. that utilize natural rubber or synthetic polyisoprene in amount as presently claimed. However, "applicant must look to the whole reference for what it teaches. Applicant cannot merely rely on the examples and argue that the reference did not teach others", *In re Courtright*, 377 F.2d 647, 153 USPQ 735,739 (CCPA 1967). Further, "nonpreferred disclosures can be used. A nonpreferred portion of a reference

Art Unit: 1714

disclosure is just as significant as the preferred portion in assessing the patentability of claims”, *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). A fair reading of the reference as a whole clearly discloses the use of 80-97 parts of at least one diene rubber which includes natural rubber or synthetic cis-1,4-polyisoprene rubber (col.2, lines 52-55). Thus, it is the examiner’s position that Segatta et al. do meet the requirements of the present claims with respect to the amount of natural rubber or synthetic polyisoprene.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/22/2007

Application/Control Number: 09/501,408

Page 10

Art Unit: 1714

Vickey Ronesi



/Vasu Jagannathan/  
Supervisory Patent Examiner  
Technology Center 1700